

1922 Coll. 139#11

FIELD TRIP BOOK DIARY

CALIF., WYO., ARIZ.

Record

Coll. 739

11

1922.

ACADEMY
NAT. SCI.
PHILA.
MS. 586

Field diary.

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NAT. SCI.
PHILA.
MS. 586

Aug.

S	M	T	W	T	F	S
		X	X	X	X	X
X	X	X	X	X	X	X
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Sept.

					X	2
X	X	X	X	X	X	X
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Oct.

/

Aug. 4. Left Phila. in "Pennsylvania Limited" at 1.16 P.M.

Aug. 5 Arrived in Chicago 10.50 AM., nearly two hrs. late from freight wreck in Ohio. Left at 8.00 P.M. in "Los Angeles Limited".

Aug. 6. Arrived at Omaha 3.30 late, due to engine trouble on North-western. Union Pacific made up sufficient time to get me in Cheyenne, Wyoming, very shortly after midnight.

Aug. 7. Cheyenne, Wyoming.

After a comfortable sleep at
 Tilden #1 the "Plains Hotel" I had a
 good breakfast and secured a
 Laramie Ford and driver. We went off
 Nels, looking W. from near
 Granite Canyon. 16 stop - 1/25 sec. uncast.
 to the west, up the Sherman
 grade to a point about two
 miles east of Granite Canyon,
 where I worked for several hours
 until a storm drove me in.
 Secured a fair and interesting
 representation. Left Cheyenne
 at 5.45 P.M. for Laramie, arriving
 7.30. Put up material and
 turned in. Could not get in hotel, but got
 a good, though inside, room.
 13-striped spermatophiles. Numerous

in vicinity of Cheyenne. Ammodendron frankii frankii near Cheyenne.

Horned Lark. Numerous betw. Cheyenne & Frank's Canyon.

Aug. 8, 1922. Laramie, Laramie Mts. to Medicine Bow, Wyoming.

Film #1 Not being able to get a hotel room, exp. 2. I managed to get a good double room at a clean rooming house, looking S. and doubled up in it with a Canadian salesman, who was a gentleman from 8833 and a man of culture. Had a good night's sleep and after a good breakfast I hired a machine & driver. I was unable to get a Ford 9.30 AM. and had to use an Oldsmobile. 16 stop 1/25 exp. 3. 25¢ a mile running, \$1 an hour. Out from Standing. In the morning we ran sumpt. up along the Lincoln Highway (Crow Creek to the highest point reached Hill) 11.10 AM. by it on the Laramie Mts., which is about 14 miles from Laramie. 1/25-16 stop. Here at Crow Creek Hill the road reaches 8833 feet, the hill 8877 feet. Here I worked for two hours, in grass, sage, open pine woods and aspen thickets. The view to the south showed the mountains of the Rocky Peak country, while to the

east, across a deep canyon, were
 the ragged knobs and crests of
 the more eastern spur of the
 Laramies, which in the geol. topo-
 graphic is called the Sherman
 Mts. After lunch we took the
 machine and went off to the
 west about eight miles, working
 in two locations, one on the
 slopes of the very large depression
 known as "The Big Hollow", the
 other, which was encountered only
 after considerable search, an
 area of rabbit weed, some ~~mesquite~~
 shrubs, alfalfa and wild,
 alkali areas with a little salt
 bush and one section of sweet
 grasses. The first district was
 extremely disappointing, and then
 resolved itself into a hunt for
 sections not closely grazed. The
 second section examined was
 the only place we could find.
 Getting back into Laramie about
 four and at the station for a
 five-twenty-five train, it was 6.40
 before I was actually on board en
 bound for Medicine Bow. I arrived
 there at 8.10 P.M. and was soon
 comfortably installed at "The
 Virginian". The getting to the

Hotel, however, was not comfortable, as I had no help and was in the last car of a tourist car train.

(Experience with convict.)

Maggie. In canyon of Laramie - one. Rock Bunting. A number near Laramie. A number of bunches about Laramie - on way to Crow Creek Hill.

Brewer's Blackbird. Numerous about ranches near Laramie.

Marsh Hawk. One quartered two on ground where I worked last.

Spermophiles - numerous.

Prairie dogs - several on range.

Aug. 9, 1922. Medicine Bow, Carbon Co., Wyoming. to Rawlins, Carbon Co., Wyo.

Had my stuff all put up by 10.30 P.M. and then had a glorious sleep until 6.50 A.M. As the past two nights I had either but part of a full night's rest or slept in an inside room with little air, it was a real treat to have all the cool breeze I needed. The hotel is good and clean, food simple but wholesome. After breakfast I

walked off to the S. E. - E. of town,
 over rolling plains, bare or with
 sage - rabbit weed, with silt or
 pebbly slopes. I had good luck and
 got quite a little of interest, including
 intermediate material of the
 fr. Plains and fr. Basin races
 of Aerchoreutes carlinianus and
Heterotermia haydenii. The view
 to the north showed the Fregeant
 Hills, while to the southwest
 Elk Mountain, the north end
 of the Medicine Bow range
 dominated the landscape.
 I spent four hours in the field
 and worked over quite a few
 miles of country. After a good
 lunch I packed material,
 much requiring stuffing,
 until nearly train time.
 My train left Medicine Bow at
 4.30 and arrived at Rawlins at
 6.20 P.M. About Hanna no mines
 seemed to be producing coal except
 one which was running out
 "slack" or powdered coal. At
 Rawlins the "Ferris" was short of
 rum, but I got a double one
 with a St. Louis drummer and
 was comfortably fixed up.

Jack Rabbit - Betw. Medicine Bow
and Hanna.

Horned Lark. Sw. at Medicine Bow.
Magpie. One near Hanna.

Aug. 10, 1922. Rawlins to Wamsutter, to Rock
Springs, Wyoming.

Film 1. I was up at 5.15 AM. after a night

#4. Acrolopus which for some unknown reason
had at had gilded but little sleep. The
Wamsutter morning was overcast with threatening
growing with masses of gray clouds, coming next
black sage of the sky. The train was an

(sample taken) hour late and it was 7.15 instead
1.15 PM. of 6.15 when we left Rawlins. Betw.

16 stop 1/25 Wm Rawlins and Wamsutter we
#5: passed through some hail and

Wamsutter, this turned to rain, which we
found falling steadily when we stopped

conditions at Wamsutter. It kept me
looking E. station bound until after nine
(dark patches sage) o'clock, in fact nearly ten

4.40 PM. o'clock, when I managed to locate

1/25-16 stop. the little hotel and transport
my bags there. The sun did not
come out until nearly noon, but
by the time I had gotten some
lunch in a little eating house
things had completely dried off.
and the salt flats showed no

evidence of the drenching they had just received. I walked off to the east and S. E. of the little town, in rolling plains, with scattered clumps and patches of black sage, Artemisia bush & other species, with sun-cracked silt areas on the level and much of the gentle slopes with bunch grass and other herbaceous growth. I walked from 1-5 PM and the results were very meager, in fact discouragingly so. The fact that I was getting Hypoxys of Drum. argyræus was one of the few fair finds.

I left Wamsutter at 8.05 PM and arrived at Rock Springs about 10.30. It was a beautiful night and the sunset over the Red Desert country was something to be remembered. I was very comfortably installed in the Park Hotel.

Cottontail Rabbit. Near Rawlins & at Wamsutter.

Aug. 11, 1922. Rocks Springs, Wyoming.
 After a good breakfast I set out
 Film 1 on foot to the north, which seemed
 exp. # 6 to me the most promising direction.
 Surface This led up the valley of Killpecker
 conditions Creek. There I struck into the
 in hills hills to the east and worked all
 at Rock morning ~~from~~ between 6250 and
 exp. # 6 6500 feet. The hills are largely
 of ~~heterotermans~~. weathered sandstone, with
 9.15 AM. some hard ledges and points,
 1/25-btw. but the surface is most debris
 16-22: of the basic rock, with scattered
 Film 2 sage, some low cactuses, Atriplex
 exp. # 1 and ? Chenopodium. The results
 Looking N. were fairly good and after lunch
 up valley I returned to work some flats of
 of Killpecker taller sage in the flood plain on
 Creek from the west side of Killpecker Creek.
 hills N. of This proceeded fairly well until
 Rock exp. a rain storm stopped work for
 10.05 AM. the day. The town is very largely
 1/25-16 stop. foreign, coal miners, and they
 are everywhere in evidence. In the
 evening I had a talk with a striking
 miner, an American, and it was
 interesting to get his view point,
 which clearly showed how little
 cohesion there is between the
 native & foreign coal miners.

Rock Wren - One in hills - another
one dead in same place.
Mourning Blon. Several in hills.

Aug. 12, 1922. Rock Springs to Granger, Wyoming.
After breakfast I found the
9.42 AM. train would be somewhat
late, which lateness by easy
stages reached to 2 PM. At
no time was enough leeway
given to warrant unpacking
and going out for some hours,
as the train I wanted was
the only one which was at all
practicable for me to use to
Granger. Eventually I reached
Granger at 4 PM. instead
of shortly after 11. I was
delighted to find a livable
hotel, which made unnecessary
an evening's run back to Green
River to sleep. I went out for
nearly 4000 hours, down along
the Blackfoot of the Green River
and then out on the sage flats,
but found almost nothing, and
the wind made work almost
impossible.

Mourning Blon. One at Granger.
Night Hawk. One on sage flat
at Granger.

Aug. 13, 1922. Granger, Wyoming, to Evanston,
Wyoming.

Last evening we had a terrific thunder storm, with a wind which the hotel-keeper said was the worst they had had since 1916. This morning it was still storming off to the north and northeast, and continued to do so until I left from Evanston at three P.M. After breakfast I worked off to the north over the sage flats and up over the bench hill to the third rise. Work was slow, the wind handicapped me and a torn net made me lose some things, but I secured many species new and did fair for ~~an~~ an almost exclusively sage brush locality. The train I was to take to Evanston was scheduled to leave at 11.59 A.M., but it was three P.M. before it got off. East bound train were also off schedule - in fact one from Los Angeles was yesterday's train. I reached Evanston at five o'clock, and was soon installed at the Hotel Evanston in a comfortable room with

bath, which I have not been able to enjoy since leaving home. In the evening I wrote letters and went to the movies, as I had packed my catch before leaving franger. We had one heavy thunder storm at 6.15 and another one at nine. I might add that at 12.30 in franger we had a hail storm.

Cotton-tail Rabbit. Two in sage at franger.
Brewer's Blackbird. Flocks at Carter and quite a few at franger.
Magpie. - Two at Knight in Bear River Valley, about 8 miles east (R.R.) of Evanston.

Aug. 14, 1922. Evanston, Wyoming and vicinity.
Film 2 After a good breakfast, preceded
Exp. no. 2 by a good bath, I struck off to the
Looking N. from south of town and spent a
hill S. of Evan- profitable morning working in
ston. Medicine the sage & other color of the hills
Butte in dist. which roll off to the south. I
9.55 am. 16 stop worked up to an extensive bench
1/25 at 7100 feet, which ran off a
Exp. no. 3. considerable distance to the south.
In Bear River
Windsor C. of
Evanston
approx. 7500 feet. After lunch I got a machine
2 P.M. 1/25 16 stop.

and dinner and went up to the point where the road crosses the Bear River bluffs to the east of Evanston. At a locality near there, where junipers were numerous, and at an elevation of 7400-7700 feet, I worked for some time, on steep slopes and the valley floor, with but little success. We ran in nearer town and there I worked in the meadow lands of Bear River, ~~but~~ with some but not startling success. It took considerable time to put up the days catch, which in all was a fairly interesting one.

Brewer's Blackbird - Numerous about
Blackbird (could not see under surface) ^{Evanston}
Numerous about ^{Evanston}
Arkansas Kingbird. One in morning.

Aug. 15. Evanston, Wyoming to Ogden,
1922. + Ogden Canyon, Utah.
Train II. I was called at 5.00 AM. in the
no. 4. report of my train at 5.45, but
looking it was 6.30 when it materialized.
From Ogden I arrived in Ogden about
Canyon from 9.00 AM. and was ⁱⁿ installed
Ogden River at The "New Healy." Having
3.00 PM. 1/25 16 stop. An early lunch I took the

Ogden Canyon car and went up the Canyon to the Reservoir (Pineview) and there worked for some hours in the bottom land and on the lower slopes of the Canyon. As we had worked the slopes for about six hundred feet up I did not have the time available to go on there. The vast abundance of Melanoplus atlanticus was most discouraging, making selecting work very hard. However, I secured several particularly desirable things. I was back at the hotel about five.

Spotted (X) Sandpiper. Two in Ogden Canyon.

Belted Kingfisher. One in Ogden Canyon.

Aug. 16. 1922. Ogden, Utah to Clovis Valley, Nevada.
I was up at 5.00 AM. and had breakfast at the Station. Morgan's train came in at 5.50 but he was not on it, that is he came from West Yellowstone on another one and arrived somewhat later. After he had gotten some break-

Just we tried to get on the Pacific
 Limited, but due to strike congestion
 they were endeavoring to keep local
 passengers off of it. However, by
 the exercise of a little clever-
 ness we managed to get on the
 observation car. It was 1.30 P.M.
^{when} we arrived at Wells, Nevada, and
 after considerable inquiry, based on
 some correspondence of Morgan's,
 we got a machine and started
 out to endeavor to find a ranchman
 who would spare two horses for
 us to work up into the mountains.
 The valley on the east side of the
 Ruby Range is Clear Valley and
 it is full of splendid hay
 fields. All the ranches were
 haying, and only after considerable
 time and search we found
 Mr. Winchell who was willing
 to let us have two horses for
 the work, and Mrs. W. was willing
 to put us up. The ranch house
 is a brick building, with wonderful
 lamboidy poplars about. We worked
 for about an hour and a half late
 in the afternoon and had good
 luck. The Winchells were most
 kind to us and went far out of

their way to make us comfortable.
The sunset view of over the valley
of rich green hay field with
the purple to desert mountains
all over the horizon was magni-
ficent, while turning to the
west the Ruby range turned
above us, with its orange streaked
upper slopes.

Shrikes. A number at Clum Valley
Magpie (app. ~~the~~ the big species) two
in fence near Coburn.

Sage hen. Flock of five in alfalfa
at ranch.

Mourning Dove. Several flocks -
Wells to Clum Valley.

Meadow Lark. Sw. in field at
Clum Valley.

Brewer's Blackbird. Large flock
at Ranch.

Aug. 17,
1962.

To Ruby Range and return
to Clum Valley, Elko Co., Nevada.

We went up about 5:45 AM and
after breakfast the wrangling of
the horses we were to use was next
in order. One was very easy, an
old, sophisticated white horse,
who was gentle and intelligent.
With him as a mount Morgan

#5 Looking S.W. from 7000 feet.

toward Southern part. Ruby Group.

9.10 AM. 16 stop 1/25.

Film 2. proceeded to get the second horse,
#6. a younger black animal, which
looking was a splendid saddle animal
found when finally bridled. However, he
Ruby Range gave Morgan many a chase over
from 8000 the large pasture before we could
put, elev. finally get him into the corral
10,000 AM and bridled. We set out about
1/25 16 stop. 8.15 AM. and headed directly

Film 3 for a very extensive snow area in
#1-5. one of the canyons. The rise, gradual
Views for about four miles, then quite
taken at steep and steady climbing work,
10,000 was through sage, then into a
feet in chaparral which made me think
Ruby Mts. of manzanita, and areas of aspen.
on east The going in the chaparral and
side. aspen was hard. We reach the
12N-2PM. snow at 12.00 and here we ate our
1/25 or less. lunch (elev. ab. 9500 feet), drinking
16 stop. the ice-cold water running from under
the ice. snow. Leaving the horses there
we worked up to 10,000 feet, where
Morgan started out for the main
ridge, while I was to work that vicinity
until he should get back. The slopes
were steep and stony, but with
many wild flowers in bloom, the
purple lupine being everywhere.
Morgan reached the main ridge,

elev. 11,200 feet and then came
 down, after picking up all the
Orthoptera he found there. His
 frog was very steep and he was
 very tired. We started down at
 3.00 P.M., as one storm raged out
 on the Blaine Valley and another
 one came along the Ruby Range.
 The latter caught us and we
 rode for about three miles through
 the rain, getting pretty wet. We
 reached the ranch at 5.00 P.M.
 very tired.

Woodcock. Morgan saw a bunch in
 pasture at ranch.

Mourning Dove. Sev. in road at Ranch.
 Prairie Jays (?) Morgan saw two at
 about 7500 feet.

Magpie. One seen at about 7000 feet.
 Golden Eagle. Morgan saw two
 at about 10,800, leaning rocky
 crags.

Marmots. Whistled about us at 10,000 feet.
 Chipmunks. At same elev.

Pinnill. One on lower slope of mtn. - flying.

Nighthawk. Sev. " " " " " "

Wilder - Number in corral & hay

Brewer's Blackbird. Numerous at ^{field} ranch.

Aug. 18, Mitchell's Ranch, Clorn Valley,
1922. Elko Co., Nevada to en route
to Reno, Nevada.

Jul 3 We were up shortly after six o'clock
O. Mitchell and after breakfast did some
Ranch. collecting in the sage brush
10.05 AM. and similar conditions for about
1/25 16 44 p. a half mile above the ranch
toward the Ruby Mountains.
We left at 10.30 AM. by machine
for Mills, there to find that instead
of arriving at 11.22 AM. our train
would not arrive until after
three P.M. A storm passed on
while we were waiting, and I
spent my time writing letters and
reading proof. We finally left
about 3.40 P.M. and saw much
of the country to the west by
daylight. It was at Battle
Mountain at 8.30 P.M. that I
finally turned in for the night.

Night Hawk. Sw. at Clorn Valley.
Brewer's Blackbird. Numerous at
Mitchell's Ranch.

Aug. 19, Reno, Nevada to Westwood, Lassen
1922. Co., California.

We went out of our berth at 2.10 AM, the train being four hours late. The hotel bus added excitement to the hour by dropping my bag & the spare into the middle of the street & leaving a corner open on each. We registered at the Golden Hotel and tumbled into bed again. After a satisfactory breakfast we boarded the train for Westwood at about 9.00 AM. Made up at Sparks it was a comfortable little train of three cars, one of which was the comfortable old-style Pullman in which we were riding. The route was from Ferry Northport along the west-side of Pyramid Lake. No intensely blue water bore numerous white pelicans and also a small gull. From Pyramid Lake to the vicinity of Arroyo Lake it is largely flat of brown adobe, covered solely with sage brush. At Susanville the first Sierran hills and the first timber is reached. From there to Westwood is right up into the heart of the

section of the Sierras. The yellow pine and fir get taller and more impressive, forming frequently on great outcrops of lava, which the Susan River boils away into the lake country. At Metwood, which is the lumber town of the Red River Lumber Company, we were very comfortably roomed, by our kindly taking the advice of a railroad official on the S. P. and wired for rooms. We ate at a very satisfactory club restaurant.

White Pelicans. Numerous on Pyramid Lake.

Swallow full. Numerous on ditto.

Red-tailed Hawk. One taken.

Susannah - Metwood.

Night Hawk. Sw. at Metwood.

Aug. 20.
1922.

Film 4
no. 1.

Looking
across
Juniper
lake at
ab. 7600
feet.
11.00 am.

Metwood to Harkness Peak, Lassen
Volcanic Park, Cal. & return.

After a good breakfast at the Club we left in a Packard trim - six and travelled through magnificent forest, first of bull pine & white fir, then sugar pine and lastly of Douglas fir.

- no. 2. Our route took us past several
 ditto at lumber camps, then the little town
 7800 feet. of Chester, then off on to a mountain
 11.15 AM road which was steady climb
- no. 3. for nearly two hours to Juniper
 Lassen Peak Lake, altitude about 7800 feet.
 from Harkness Peak summit This is at the foot of the real
 1.50 PM peak of Mt. Harkness. At 11.00
- no. 4. AM. we started for this summit
 Shasta from Harkness and worked up our lava,
 Peak summit. large & small, with moraine
 1.00 PM of this material showing the
 no. 5. glacial grooving, and to a
 looking E. Summit cross of small fragments
 from Harkness Peak. and almost granular stretch of
 1.00 PM lava. The view from the summit
 no. 6. was splendid, the elev. 9200 feet.
 North slope of Kendrick Peak, looking Do the west Mt. Lassen dominates
 E. 1.30 PM. about everything, while off to
 the north the white bill of
 Film 5. Shasta was hanging like a
 no. 1 great cloud. At our feet was
 large binoculars the deep blue of Juniper Lake,
 on white peaks and knobs of lower
 Mt. Harkness elevation, covered with heavy
 near Juniper forest in every direction.
 Lake ab. The ride back was just as
 7800 feet. interesting as that up, and we
 no. 2. were back at Mustang' tired,
 typical but with a most productive
 tall pine forest day's work to repay us.
 at 4800 feet. 4.30 PM.

Eutamias chipmunk Common everywhere.

Callospermophilus. Nearly equally numerous.

Mtn. Quail - Two on a boulder at about 7000 feet.

bluish grouse. One at about 7500 feet, another on summit of Mt.

Harkness.

California Woodpecker. One at 7500 feet.

Turkey Buzzard - One at Chester.

Aug. 21, Motron to Arvadac California.

1922.

We left Motron via a jitney (Chevrolet) at 8.00 AM. with our three heavy bags stowed in the rear seat, with one of us, the two changing occasionally. We went down the Susanville road, through the magnificent Sierra forest, over the lower divide between the Feather River drainage (Pacific) the Susan River (Great Basin). The road to Susanville is a new one, beautifully graded. We worked at two localities just outside of Motron, one a wet meadow, the

other a drier one with an intrusion
 of sage, also at ~~which~~ what is
 called the Hensil's Corral, on
 the Susan River. A great deal
 of the course of the Susan River
 for about ten miles above Susan-
 ville is through lava beds, and
 the Hensil's Corral shows very ex-
 tensive areas of volcanic origin.
 The final drop out of the mountains
 is directly into Susanville, which
 is immediately at the foot of the
 mountains, and was a great
 point for starting across from
 49 m. We lunched at a Chinese
 restaurant in Susanville and
 about Twelve-Thirty started for
 Amadee, where we were to lay-
 over night and then go on over
 the narrow-gauge Nevada,
 California and Oregon Railroad
 to Alturas and Lakeview. From
 Susanville down to Richfield
 ranch succeeded ranch, with
 hay and alfalfa fields, a
 number of sloughs having a large
 number of ducks in them. The
 ground became more and
 more alkaline, the road
 poorer, the dust thicker and
 more pungent. The sage, which

had predominated in the uncultivated land, began to be mixed with Sarcobatus, and finally replaced almost entirely by the latter. From about five miles above Grand to Amadec the dust was frightful and the road extremely poor. Amadec is a group of about a half dozen buildings gathered about a collection of hot springs, which bubble up from the soil. The hotel is a large barn-like structure, which certainly was someone's "folly", as it clearly cost many times more than the patronage of the springs would warrant. It is a melancholy place with few and hopelessly inadequate furnishings. We got a large room with two beds, and put up our day's catch, while the wind, which had been heavy all afternoon, ceased outside. After dinner, of a most primitive kind, we took the flash-lamps and went out to look for dermestids and centrophiles, with little success.

Magpie. One near Susanville.

Pintail. Numbers in sloughs between

Susacville and Lichfield.
 Ducks, other species but not
 determined. Numbers in
 sloughs as above.

Entomias.
Callospermophilus } Common in
 Sierrita betw.
 most road & Susan-
 ville.

Crotophytus of the virgilitzensis type,
 One, the largest of the genus I
 have ever seen, at Richfield.

Aug. 22, Amador, California to Alturas,
 1922. California.

Fine 5 We had a good night's rest, which
 no. 3. was hardly to be expected after
 ducks on the general impression created
 Honey Lake. by the dilapidated condition
 pm light. of the hotel. After a rough but
 9.00 am. filling breakfast, we struck out
 11 stop past the hot springs, over alkali
 1/25. saturated silt, with Sarcobatus
 and rabbit weed, toward the
 shore of Honey Lake. The day
 was overcast and cool, while
 the mosquitoes were bad. We had
 fair success in our collecting.
 The great sight of the day was
 the vast numbers of water

fool in Honey Lake. The ducks
were by the thousands, feeding
in the shallows, moving out as
you walked along the shore. We
could not identify the species,
but we saw one splendid bunch
of about a dozen avocet, while
many sandpipers, sp.?, and
killdeer ran along the shore.

After lunch we went to board
the 1.55 P.M. mixed train for
Alturas, but it was 5.20 P.M.
before it arrived & finally left.
We had a large cake of sweet chocolate
with us and that was all the
nourishment until the narrow-
gauge N. C. & O. train reached
Madeline at 10.45 P.M. There
we had supper and after dozing
curled up in a seat for some
hours we reached Alturas
shortly after 2. A.M. We were
~~at~~ soon installed in a com-
fortable double room, ^{at the Miles Hotel} and we
slept the sleep of the tired until
about 7.00 A.M.

Avocet. About a dozen in Honey Lake.
Ducks sp.?? Thousands as ditto.
Brewer's Blackbirds. About 1000 of
Amadee.

1 Elder. Numerous on shore of Honey Lake.

Sandpiper sp? Quite a few on shore of Honey Lake.

One of the hot springs at Amidee is a small geyser, bubbling up through a calcareous aperture, and every 45 seconds throwing a column of water to a height of 15-18 inches, lasting about 15 to 20 seconds. The other springs are bubbling springs, some apparently of far greater discharge than the geyser. Another pump is located just south of Mendel.

Aug. 23, Alturas, California ~~to Lakeview~~,
1922. Oregon.

Breakfast concluded, we hired a car, and started out to work the vicinity of Looking S.E. Alturas. We went off to the farm edge east and worked in pasture
4
flora land, sage brush on silt, escarpment sage brush on low lava hills in Alturas and sun-cured short grass
2-00 PM draws. Results were at first rather poor, but before going for lunch we had gotten a

very good assortment and series
 of several most desirable things.
 After lunch, using the machine,
 we went off to the north-west and
 climbed the edge of the great
 Morden lava ~~escarpment~~ bed, this
 being about 800 feet above the
 valley of the upper Pitt River.
 The char is largely scattered
 juniper, and we found little
 of interest. We walked down the
 slope and then in dry grass
 and lava at the base, getting
 several species additional to
 the morning's work. At six
 we were informed our train was
 one hour and forty minutes late
 and according we went to meet
 it, only to find it had arrived
 & departed ten minutes before.
 As there is but one fair train
 every other day, our disgust could
 not be expressed by words. We at once
 set about getting a machine to
 take us to Lakeview, Oregon & back.
 Godwits. Morgan saw several in
~~slough~~ ^{lake} at Alturas.
 Great Blue Heron. Three in lake
 at ditto. - one quite tame.
 Tern, with black cap - One
 flying over same.

Bittern - two in lake at
 Alturas (flushed)
 Gull. - in mottled plumage -
 one wading along slough at
 Alturas.
 Hucos sp ?? Numerous in
 lakes - sloughs at Alturas.
 Brewer's Blackbird. Numerous
 at Alturas.
 Shrike. One in fence at ditto.
 Pinnill. One.

Aug. 24, Alturas, California to Lakeview,
 922. Oregon, and return.

Film 5 We left Alturas at 6.15 AM.

no. 5-6. with the same large 12 cylinder

Sundstone "Kodak" machine we had yesterday.

pinnales day, bound for Lakeview, Oregon

along Pitt and return. Our course

Rim N.E. led first north-east to the

of Alturas, canyon of the Pitt River

Cal. through the Modoc Lava Lake-

4.30 PM camp, then on the lava,

1/20-16 stop. dropping down regularly

to the broad valley of Goose

Lake. Bird life was much

in evidence so early in the

morning. Goose Lake is 40

miles long, but very shallow

and lacks the iridescent

blue of Pyramid Lake. The

Warner Range to the east

makes a good setting for the

lake. The east shore of

which has many ranches, cattle,
 alfalfa & hay, while orchards of
 apples, plums & apricots are in
 evidence. Between the lava and
 the east center of the lake the
 road drops some, then has to
 climb up and around a spur
 of the Warner Range named
 "Sugar Hill", where you find
 for some little time in the hill
 some belt. In a belt of sandstone
 which is in a pocket of the large
 lava plateau is a collection of
 remarkable weathered sandstone
 pinnacles, some about 25 feet
 high, of which we took several
 pictures when returning. From
 Sugar Hill it is not very far
 to New Pine Valley, a town half
 in California and half in
 Oregon. From there it was ^{forty} miles
 to Lakeview, on the outskirts
 of which we did our first work
 of the day. We arrived at Lake-
 view, ^{at} ~~in~~ ^{about} ~~two~~ ^{two} miles from
 Altitude, before eleven o'clock. After
 lunch we started back and
 ran steadily until the climb
 about Sugar Hill was reached.
 Here we worked on a lava bench

which was largely covered with
broken nodules of obsidian.
After this we walked in the
decaying pine forest for some little
time, getting several most inter-
esting species. We ran from
there in with a thunderstorm
behind us, and reached town
nearly after five P.M.

Cottontail Rabbit, Davis Creek,
about 20 miles from Alturas.
Jack rabbit. Alturas.

Brewer's Blackbird. Everywhere,
in large flocks, about ranch
buildings, etc.

Yellow-headed Blackbird, large
flocks, outskirts of Alturas.

Mourning Dove. Many places
en route.

Meadow Lark. Numerous along
whole route.

Crowbird. Common - Alturas.

Barn Swallow. Do. Alturas.

Maggie - Six at Davis Creek.

Golden Plover. Flocks at number of
places.

Savannah Sparrow. - Three at
Davis Creek.

Red-shafted Flicker. Sev. at Warner
Creek.

Leucis' Woodpecker. Several small
lots between Warner Creek &
Lakeview.

Red-tailed Hawk. Seen at Sugar Hill.
Robin. Sev. at Sugar Hill.

Sparrow Hawk. Regularly & collected
along with, particularly about
cultivated tracts.

Crow. Large flock at Fandango
Creek, Cal.

Aug. 25, Alturas to summit of Cedar
Peak, Warner Mts., Mono Co.,
California.

Film 6 #1 We left the hotel at 9.00 AM. with
Looking east the same driver and car we have
in surprise been using, and travelled east over
valley from the Cedarville road to the pass
summit of in the ^{Warner} mountains south of Cedar
Cedar Peak, which was our objective
1.30 PM. point. The road first climbed
1/2 to 16 stop.

#2 The rather indefinite edge
Looking W. of the lava escarpment then
on Pitt River entered some juniper country
valley from to which quickly gave way to
ditto. 8.15 AM. red pine, and this to fir
same date and aspen in the creek ravine
as the road steadily climbed.

#3
Looking S.
from the
summit
Warner Peak,

- Warner
Mts., from
above.
Same data.
4
Looking N.
from Lake
from ditto
Same data
5
Habitat
of rare
Asteroid
on Cedar Peak
at 8100 feet.
2.00 PM.
1/25 16 stop
- The summit on the road is 6200
feet, and here we left the car,
striking out up a canyon which
led up to the southeastern face
of the peak we had as an objective.
No soon found the going was very
heavy, the trails only sheep trails
which led nowhere in particular,
while the rock work, due to
volcanic pinnacles and ledges
was very heavy, particularly
between 6500 and 8000 feet.
The slopes otherwise were very
steep, loose dirt between the
rock outcrops, and with some
patches of manzanita chaparral
and much sage. It was a very
hard pull on my mind, but I
finally made to peak (8100 feet)
which we thought four below
was the main peak, only to find
that was a half mile away,
along a hog-back which dropped
about 200 feet and then climbing
about 100. This saddle ridge
had about five groups of pin-
nacles which made climbing
particularly mean. However,
I secured one male of a
most remarkable Asteroid
in this stretch, no more of which
- # 6
Cedar Peak
from E. canyon
at 7300 feet.
2.22 PM.
1/25 16 stop

were seen. The views from the
 top were wonderful, & I was
 standing out against the sky
 in a most uncanny manner,
 while in the dim distance,
 over 180 miles away, we could
 make out the outline of Mt.
 Lassen. To the west Surprise
 Valley lay below us, to the north
 Bidwell Peak in the Warner's,
 to the south Warner Peak (8300
 feet) in the same. The summit
 of Cedar Peak is 8400 feet elev.
 We dropped down to the car in
 about an hour of scrambling,
 slipping, up and down slopes,
 through chaparral & sage. We
 were very tired when we reached
 the car, and on our arrival
 in town we prepared a shipment
 of material for sending home.

Fern (black head - red bill, seen
 at Lake coast of Altamira - seen there
 Aug. 23.

Great Blue Heron. Two at delta.
 Brewer's Blackbird. In
 abundance about ranches.
 Sparrow Hawk numerous, one
 on top of Cedar Peak.

Night Hawk. Numerous on
Alturas at evening.
Clark's Crow. One which on
summit of Cedar Peak.
Rock Wren. Sev. on ditto.

Aug. 26, Alturas, California, en route to
1922. Tonopah, Nevada.

The narrow gauge from the
north arrived at Alturas at
9.35 A.M., on time, and we left for
Mendocino on the A.T. Along the
South Fork of the Pitt River,
which we followed for about
twenty-five miles were many
sloughs, with numerous water
birds. Travel at Madeline was filling
but rather rough, and the
interminable clumps of lava
hills ended at Mendocino at
3.15 P.M. on time. The Southern
Pacific Train from Modesto
left Mendocino at 3.50 on time,
and the ride down the west
side of Pyramid Lake, just
before sunset, was beautiful
in the extreme, backed as it
was by the rainbow of a storm
over the Lake range to the
east. At Fernley we laid
in for the Tonopah train

from San Francisco, having a fine T-bone steak and most wonderful melon for dinner. Morgan wandered into the brush and got the most northern records for Hesperis letter, between Shoreline. Our train came along at 11.00 P.M. and in some form comfortably in bed - asleep.

Hawks - 2 lots on S. Fork of Pitt River.
 Bittern - One flushed on ditto.
 Killdeer. Everywhere along ditto.
 Bannock / Blackbird - About every ranch & in pastures on S. Fork of Pitt River.

Great Blue Heron. - Two on ditto.
 Muspies. Six along ditto.
 Marsh Hawk. One!.. "

Rail. sp? - One flying along ditto.

Apparently Virginian can can pattern.
 White Pelicans. Numerous on Pyramid Lake.
 full sp.? Quite a few in some.

Aug. 27, 1922. Donopah and Millers, Nevada.
 When I got up at 6.30 a.m. we were about 10 miles west of Donopah, and from Millers up the long grade. Crotophytes into the Donopah hills the train Millers, crawled for an hour. It was Esmeralda about 8.30 before we managed to get engaged to the hotel.
 (J.K.)

- Film 7 and we were fairly warm
 # 1 for breakfast, which we had at
 Tonopah a very good place, good cantaloupe
 fresh at also. Tonopah had a big fire
 Tonopah. but a few days ago, which
 9.00 AM. burned out the famous old
 betw 11-16 "Casino" and the restricted
 1/25 district. It nearly took the
 # 2 railroad station and every-
 Conditions thing there about. If the wind
 at Tonopah, had been from the West
 evening instead of the East the whole
 N. town would probably have been
 10.00 AM. destroyed. We got a good machine
 16 stop 1/25 and spent the morning in the
 # 3 hills east of the town, about
 Tonopah and east of the Tonopah Belmont
 from S.E. mine. The results were
 11.20 AM. interesting but scarce and
 16 stop 1/25 seemed to indicate that Tono-
 # 4 pah is too high to get the
 14 stop 1/25 marked condition of the austral
 cycloptera fauna. we were searching
 at Millers, for. After lunch we took the
 Nevada. same machine and drove
 4.45 PM. and went further miles down
 betw 11-16. the grade to the West to the flats
 1/25 north of the mine at Miller.
 Here, at 4900 feet elevation,
 we found the southern fauna
 far more marked and we

secured Encycloptera, Pecilo-
tellix, Her. Armonia picta, etc
and altogether had a very pleasant
afternoon. After a good dinner
was put up material, re-
packed and prepared to leave
in the morning train of through to
San Francisco.

Aug. 28. Inopah, Nevada, en route to
1922. San Francisco, Cal.

Travelled all day, via Mina,
Hayden & Truckee, on Donner
Pass. We left Inopah at 9.10
A.M. in a through San Francisco
Pullman. There was much rain
in the way, around Mina-
Thore. We were delayed over an
hour in the night by burning
down sheds above Truckee.

Aug. 29. We reached Oakland Pier about
1922. 8.45 A.M., checked our bags, called
Mr. Grinnell's house and found
he was in Berkeley, then break-
fasted. This finished we went
out to Berkeley to see Mr.
Grinnell and had a very
pleasant visit with him at the
Museum. His assistant - Dixon

gave us much useful information
 regarding reaching Telescope
 Peak. We dined with Mrs.
 Grinnell and Van Helye at the
 Faculty Club. As each had
 lectures at one o'clock, we
 parted with our delightful hosts,
 and hurried back to Oakland,
 across San Francisco Bay &
 city to Golden Gate Park and
 to the Museum. Our greeting
 from Mr. Van Helye was cordial
 in the extreme, and at the
 urgent invitation of himself &
 his good wife we had a most
 pleasant and enjoyable dinner
 with them. The hour passed
 only too rapidly, and with some
 regret at leaving always
 hospitable San Francisco, we
 rounded our way to the Oakland
 Pier and boarded the Fresno
 sleeper.

full (Museum California) in number
 in San Francisco Bay.

Aug. 30. On route to Coalinga, California,
 1922. and work there about.
 We were off at Fresno shortly
 before seven and got a hasty

Took breakfast, re-checked our camp
 #5. kit and climbed on a train
 Bush for Jochen Junction, leaving at
 7.45 AM. We ran through vineyards
 by adobe and orchards, by prosperous
 cal. as "Home" border, the home of the
 "Culunga Raisin", and another sign,
 9.05 AM. "The Home of the Peach". At Jochen
 Junction we had a short wait,
 which Morgan improved by getting
 some good things. It was a
 two hour ride to Culunga, at
 first through orchards & vineyards,
 then the country became drier,
 with the sun-cured yellow grass
 so characteristic of much of
 California, then the hills
 came and the great f of oil
 derricks north of Culunga came
 into view. At Culunga we
 were so comfortably quartered
 at the Petrolia Hotel, and then
 proceeded to get a good lunch and
 a machine. We got the latter but
 not a man for the afternoon, so
 Morgan took the wheel. We worked
 out for about seven miles to the
 east and had excellent success,
 although the variety of species
 was much limited. After

dinner. I stuffed material and
 Morgan made a rather disap-
 pointing foray with a machine
 . eight. The day was pretty hot &
 the light was trying.
 Crows. Number at Coalinga.
 Brewer's Blackbird. Large flocks
 at Coalinga.
 Horned Lark. Numerous small
 flocks out of Coalinga.
 Road-runner. Two, short
 distance out of Coalinga.

Aug. 31, Coalinga, California to Priest
 1922. Valley, Diablo Range and return.
 Film-7. We left the hotel about 8.00 AM.
 #6. with a large Studebaker car and
 Hillside headed for the higher sections
 habitat of the Diablo Range of the Coast
 of dextral, Ranges to the west. We went
Hesperus, up Alcalde Canyon, past the
Cedars. deserted town ~~to~~ of Alcalde,
 & new Mel. steadily climbing, up into
 Priest Valley, the broader portion of the
 2600 feet. same drainage channel,
 1.30 PM. which is called Waltham
 1/25 stop Creek. We passed from the
 betw 16-22. bare semi-desert hillsides
 of the Alcalde foothills to the
 higher sections where
 far-wood and yellow grass,

- Feb 8. This with a smoky-looking
 #1 pine and large areas of
 looking up chamise, became predominant.
 Waltham We worked at several stations
 Creek N.W. in each apparently marked
 from 1800 commencement, at 1000 feet,
 feet. at 1300 feet, at 1600 feet, and
 3.00 PM. finally at 2000-2600 feet.
 betw 16 & 22 where the divide between the
 1/15 San Joaquin drainage of
 #2. Looking Waltham Creek was left behind
 across and we entered Priest Valley,
 ditto which drains into the
 (not). Salinas River. Work was in-
 some trestling and profitable, but
 slow and tedious. Much
 data
 #3 Looking important information was
 down secured on a number of species.
 ditto Our intention had been to
 (S.E.) look for the upper slopes of
 same Cedar Peak, which trended to
 data. the east of where we stopped,
 reaching a height of over
 3500 feet. It was evident,
 however, that the chamise
 extended solidly to the top
 and no changed condition would
 be encountered. Inquire at
 a Priest Valley farm house
 developed the information

that our impression regarding the extent of Chamise in Center Peak was correct, and also that it was extremely heavy and difficult to penetrate. The rain used was our greatest annoyance in collecting, new net & bags some being stiff and rubbing. We were back at Coalinga about 5.00 P.M. and our whole evening was taken up in preparing material.

Amnospemphiles. Very common above about 1200 feet.

California Woodpecker. Numerous in the timber, i. e. above 1500 feet.

Bluebird. Quite a few above Alcalde Canyon.

Sept. 1, Coalinga to Bakersfield, California.
1922.

We were up at 5.45 A.M. and after a very substantial breakfast we left via train at 7.05 A.M. for Goshute Junction. Changing there we travelled south by Tulare to Bakersfield. We arrived at 11.10 A.M. and shortly

were installed at the Southern Hotel in comfortable rooms. A conference with the man who brought us from the station resulted in his engagement to take us out for the next three or four days, then some lunch and getting our mail was in order. In the afternoon we worked at several localities along the San Francisco Road, about eight miles out, in dry yellow grass, in a spiny bush and along an irrigating ditch. The results were most satisfactory, getting series of two species which were very desirable. It was a hot day and the evening was a very warm one in Bahersfield, so that packing materials and writing letters was not a wholly pleasing diversion.

Worming Elm. Numerous bites.

Coalinga - 4 fished.

Burrowing Owl. One near Hanford.

Crow. One near Hanford.

~~Northern~~ ^{Wilson} Phalarope (no Rufous on neck) One in ditch near Bahersfield.

Sept 2,
1922.

Bakersfield to Walker Basin,
southern Sierras, and return.

We left the hotel at 8.00 AM. with the same drive we had yesterday afternoon. We followed the excellent, well built road on the Tehachapi Pass east to Caliente, to reach which we were climbing for quite some distance. We worked at Berra, below Caliente and about Caliente. From the latter place we followed up Caliente Creek Canyon for some miles, then turned directly into the hills and climbed steadily, up a most beautifully graded road, up - up, until at four thousand feet we started to drop down to Walker Basin. We worked at 4000 feet, with no little result, also at Walker Valley with similar results. The timber above the lower canyons is scattered oaks with numerous "Snake" pines. Our lunch in Walker Basin consisted of one large casaba melon, which was sufficient to fill us up for a while. The return down the grade was made without

notwithstanding the incident, and we were back at Bahusfield shortly before five o'clock. Morgan then spent considerable time in securing information regarding Mt. Pinos, which we wished to visit next.

Golden Eagle. One flew close to car near Caliente - splendid view. California Woodpecker. Numerous at 4000 feet near Miller Basin.

Sept. 3, Bahusfield to Horoney's Ranch, 1922. Teuchapí Mts., Ventura Co., Cal.

We left Bahusfield at 8.00 AM. and using the same Cadillac and driver we had yesterday we travelled due south across the southern end of the San Joaquin Valley, thirty-one miles to the foot of Cajon Canyon. The road is straight-away for eighteen miles and all the way to Lebec is ~~an~~ magnificent highway of concrete, splendidly graded! At the foot of Cajon Canyon the road climbs in serpentine to an easier grade up

the canyon and then for
 ten miles you are steadily
 climbing among splendid basins -
 as pretty a piece of really
 natural country as I have seen
 in California. At last we
 turned due west and took a
 mountain road for about seven
 miles, steadily climbing,
 and after several inquiries at
 cabins we stopped at Horner's
 Ranch, at about 5000 feet, and
 relatively close to Mt. Pinco,
 our objective. Old Mr. Horner
 said he could take care of us,
 and started in by giving us a
 good dinner. In the afternoon
 we worked the vicinity, with
 good results, and under Mr.
 Horner's direction, we went
 up to Bear Trap, the point
 from which to begin the ascent
 of the mountain. There was one
 bad bog piece which skew-bowed
 the Cadillac & so we decided
 on the other approach in the
 mountain. We shared the tent
 of Mr. Chun, a well educated
 Chinaman of Los Angeles, and
 we did well with mother earth
 for a bed.

- Sept. 4, 1912.
 Film 8.
 # 4
 Pines on summit of Mt. Pinos.
 of Mt. Pinos.
 of Mt. Pinos.
 11-16
 1/15
- Worming's Ranch to Mt. Pinos
 + Return to Bakerfield, Cal.
 We were up at five AM. and after
 a hearty breakfast departed
 with a party of deer hunters, including
 the seventy year old Mr. Worming,
 to the head of Seymour Creek at
 ab. 6000 feet. After leaving the
 machine, Mr. the son-in-law of old
 Mr. Worming and myself started
 across country and struck an
 old logging grade which ran
 down from the summit of Mt. Pinos.
 It was well graded, the slope
 was even, but the way was long
 ab. 8000 feet. as it worked around the
 skirts of the south & east slopes
 and then went to the north
 side and up a long ridge leading
 to the upper portion of the mountain.
 It was approximately five miles
 to the saw mill at ^{near} the summit,
 the latter reader one of a number
 of rounded knobs projecting
 from a general ridge. The bull
 pine carried to the ridges of
 the summit but the highest
 pines ^{were} well supplied with
 fir, some of very large size.
 The summit is 10000 feet above sea level.
- # 5
 Looking E.
 down from
 slope of Mt.
 Pinos at
 ab. 8000 feet.
 16 1/15
 10.30 AM.
- # 6
 ditto
 ditto
 ditto

and the view from the top of the ridge most magnificent. So the V. E. we could make out the peaks of the San Bernardino & San Jacinto ranges, while the San Jacinto to the north was in a haze. We had very good luck collecting, particularly in the way down when we took a series of *Cinctellix* on ~~climbing~~ ^{crumbling} slopes of rotten granite. We were back at the house before one o'clock and by 2.30 had packed & started back to Baker's field. We stopped at a wash a short distance before reaching Lebec and in about forty minutes took ~~over~~ about 100 specimens of a very considerable number of species, of genera such as *Poecilobettix*, *Byrrhinastax*, etc. It was in fact one of the very richest spots we have ever worked in California. We were back in Baker's field about 5.30, cleaned up, dined, prepared our ~~entire~~ material and at 9.00 P.M. were on the sleigh to go to Mojave, then up to Seale's & Irwin.

An *Andruis* warbler. One flock in
 for an entire day at 1000

Pygmy Nuthatch. Sev. on Mt. Piros in
fns.

Macgillivray Warbler. One in
fns on Mt. Piros ab. 7000 feet.
5. good view.

Crows. Sev. Betw. Dixon Canyon
& Bakerfield.

California Towhees. Numerous
at Sonoma - on Mt. Piros.

California Jay. Numerous, ditto.

Sept. 5. Tehachapi to Tama, Cal.
1911. We reached Mojave at 6.30 AM.
our train was late, as for some
reason our engine broke down
going up Tehachapi Hill, so
we stranded and stranded, &
stopped & started. The Union
train had waited, so while
Mojave fixed our baggage and
then got some breakfast for the
two of us, I struggled with
trunks & getting our field kit.
At Seale we changed to the
Tama train and at Elmer we
reached Tama in Seale
Lake, the site of the large plant
of the American Tama Corporation.
Armed with a letter and telegram
we sought out the manager and
with ~~all~~ utmost courtesy
he placed a splendid room
at our disposal and arranged

so that we could eat at the company's mess. He also assisted us in getting a man and car to make the Panamint trip, so that by two in the afternoon all the real plans had been successfully laid. We spent most of the afternoon working between Juma and the nearly level slopes of the Argus range. In the evening we brought down our outfit and visited Atlas.

Croft. One betw. Searles & Juma.

Burrowing Owl. One betw. Mojave & Searles.

Sept. 6. Juma to Charcoal Kilns, Wild Rose Canyon, Panamint Range, Inyo Co., Cal.

Feb. 9. We were up before 5. or 6 AM. man-
#1 Jules - aged to get a bite of breakfast
cape Peak and made on our way a few minutes
from Panamint after six. Our driver and com-
panion, whose name is H. H.
of month Hichinson, is a Louisiana boy
of Wild Rose and a delightful companion.
Canyon we gradually climbed north
8.45 AM.
betw 16027 & 16028

Film 9

2 Lake is situated to near its north end, then climbing by an easy Canyon walls. The pass to about 3000 feet, with at ab. 3000 feet. ~~from~~ ~~spring~~.

11.00 AM.
bks 10-22.
1/25

3. Up Mld Rose Canyon, from lower spring 3600 feet 11.40 AM. 16

1/25
4. Down ditto. Same date

5. Down Mld Rose Canyon from 5500' Looking due W - Sierras in distance 1 PM.
22 - 1/25

6. Coal kilns Mld Rose Canyon. 6500 feet. 2.10 PM. 16 1/25

Film 10
1. Down Mld Rose Canyon from kilns same date

the Panamint Valley spread out before us like a map, dominated to the east by the bulk of the Panamint Range, capped by Telescope Peak. From this pass it is a very steep and sharp drop to the valley slopes and we must descend carefully. Ballarat lies on the east side of the valley, and we crossed the salt and mud flat on the 1000 foot level, getting to Ballarat shortly after eight. Ballarat has a mill and about fifteen houses, but only one family ~~to~~ was there. The man helped us with a gasoline can to replace one of ours which got washed by a rock coming down the hill. From Ballarat we worked north following the road through Indian Ranch to the north of Mld Rose Canyon, twenty miles, a lot of it bad track which painfully suggested Emigrant Wash, of unpleasant memory. Starting up Mld Rose

Feb 10
 #
 Wrote
 across to
 Sierras.
 ab. 7 PM.
 Since 12 sec
 10 stops.

Canyon the grade was heavy, but
 the Chandler pulled splendidly.
 At 3600 feet is the lower wash,
 a good running stream, which
 has been partially piped. We
 up on worked, 4000 feet, leaving
 the Harrison - Kidoos road
 behind - 5000 feet and out of
 a narrow canyon into a broader
 valley, up which the road was
 made in the wash, then more
 narrow and steep valley, up,
 up to the red charcoal hills
 at 6500 feet, where we camped,
 surrounded by pinyons and
 junipers, which extend well down
 below 5000 feet. After a
 good lunch Bryan and I started
 to the head of the valley, working
 and exploring, and climbed to
 the draw at the head of the
 canyon 8500 feet which leads down
 into Death Valley Canyon. But
 there we spread Death Valley, with
 all its color display, the Mojave
 Range with its stripings and
 far off to the east, but sharply
 defined, the Charleston Range,
 about 100 miles away. It was
 one of the most stupendous
 panoramas one could imagine.

We returned to camp shortly after 4 and then packed specimens and had supper. The instant the sun dropped behind the hill a marked chill came into the air, which increased as time rolled on.

Sam's
 Mail. White-throated Swift. Numerous
 Whole country at Summit pass at 8500 feet.
 Lower Wild Rich Wren. Several at ab 3000 feet
 Rose Canyon. Wild Rose Canyon.

Sept. 7, Coal Hills, Wild Rose Canyon, Pan-
mint Mts., Inyo Co., Cal.

To-day Morgan and Dickinson
on drink were to try to reach the
summit of Telescope Peak (11000ft+)
and back in a day. Personally I
realized that I could only form a
drag on the party, so I climbed only
the main ridge at the head of the
canyon, to 8500 feet, then followed it
north to a peak 9000 feet high, from
which one could get a more compre-
hensive view of the country to the east.
While the men had shown the whole
evening before, cloud masses had
covered much of the sky, and the
morning was overcast and threatened

rain. It was quite cool, in fact cold, until nearly nine o'clock. The view was much obscured by ~~some~~ cloud masses, but the Providence Range could be recognized far off to the S. E. in addition to those mountains located yesterday. The peak I had climbed had a steep face toward Wild River Canyon, with a number of slides of large rock, but I went down over them. At noon I lunch by myself, washed dishes and then spent most of the afternoon endeavoring to collect in the general vicinity of the coal kilns, but the results were worse than poor. The Telescope Peak party returned about 5:15 P.M. after what Morgan said was the hardest climb he had ever had. All were very tired and had saw us by eight o'clock. Golden Eagle! M. saw two on summit of Telescope Peak.

Pom-will. Heard about camp in evening.
~~Pom-will. Heard about~~

White-throated Swift Numerous upon ridge.
 Clark's Crow. Several on ditto.
 Red-shafted Flicker. ^{M. saw one at 9500 feet.} One seen, coming down from ridge.

Kiofno (apparently, as several color was refused) Hummer. One dashed about camp at 6:50 A.M.

Rock Men. One poking about crevices
in one of old kilns.
M. saw several at 9000 feet
on ridge of Baldy above
prayer.

Sept. 8. Chaural Kilns, Wild Rose Canyon,
1922. Panamint Mts., Inyo Co. to Drona,
Alt. no. Searles Lake, California.

60. We were stirring at 5.00 AM. and
Crotalus soon had breakfast started. The
Wild Rose right had been by no means as
Canyon cool as the previous one, so it was
Panamint possible to sleep with greater com-
Mts., Inyo fort. Breaking camp was quite a
Co., Cal. task, particularly when water
5200 feet. conservation to allow for possible
Bluish accident must be considered. The
inside clouds were rather heavy about the
of head mountains, and before the day was
contrasted in the country in our leaving was
strongly being drunched, as we could see
with general from a distance. We started down
reddish the canyon at 7.45, working steadily
coloration but slowly, as it was all work in
compression and careful running,
on account of the terrific grades
and the stony roads. We worked
several places on the way down,

Film 12

1

Across to
Sierras from
Wild Rose
Canyon, 300
feet above
kiln.

7.55 am.
broke 18 sec.
16 stop.

2

Looking down
canyon from
Wild Rose
Spring.

10.20 am.
16 stop 1/25

3

General
view of
Ballarat
Panamint
Valley.

12.50 PM.
broke 11-16
cloudy 1/25

4

M.H. at
Ballarat

5

J.R. at
Ballarat.
General
view of
Ballarat.
Pub. double.

6

General
view of
Ballarat

at Wild Rose Spring we filled all water
containers, and then started down
the lower part of the canyon and
out on to the long washes and
miserable section of the road
between the canyon mouth and
Indian Ranch.. We had fine
trouble part way, but got into Ballarat
about 1.00 PM. Here we lunched
and worked a while in the Salicornia
on the crested ^{hummocky} valley mud, which
extends south of this pitiable
place. We left Ballarat about two,
crossed the flat and climbed
the slopes to the crossing of the
Argus - State range file. As the
north a heavy storm was working
down from the neighborhood of Wild
Rose Canyon across the valley,
blowing the dust before it in a
great sheet like smoke, throwing
it far up on the east side of
the Argus Range. Our Matamoras
Peak, in the Argus, another
storm was raging. The grade across
to the Charles Lake Valley is an
unbroken one from the Panamint
side, as it is two miles long and
in some places is 19°, while it
is so rough it is like a series of

Film 13

1

Panamint
Flat near
Ballarat.

2.15 PM.

16 stop 1/25

2

Maturango
Peak, Argus
Range with
Horn. from
Panamint
Flat.

2.15 PM.

16 stop 1/25

3

Storm on
Panamint
valley to
north from
grade into
Searles Lake
valley.

ab. 4.00 PM.

4

Across
Panamint
valley toward
Teles cope
Peak from
top of pass
to Searles
Lake Valley.

ab. 4.00 PM.

steps. Just on the top we discovered we had picked up a nail, probably at Ballarat and punctured a tube. This took some time to repair, but we collected to advantage in the meantime. We ran into Trona shortly after five, where we installed in the room we had been in before and then had our dinner. A three days' beard then required removal, and putting up our catch took until nearly nine.

Aphelocoma Jay. Seen in way down Wild Rose Canyon at Great Horned Owl. Heard about 100 camp and one seen twice in the canyon at Wild Rose Spring.

Mourning Dove. Sev. in Wild Rose Canyon.

Deaf (sp?) One bunch in salt pond at Ballarat, with single unidentified larger duck.

Sept. 9,

1922.

Alt. no. 61

Callisaurus

Trona,
Searles Lake,
Cal.

Vicinity of Trona, San Bernardino Co. and en route to Los Angeles, Cal.

After a splendid night's sleep and a good breakfast we moved off to the north of the Trona.

Film 13

5

Looking up - about lower outwash slope of the Indian Joe's Argus Range. It was quite hot & garden, and results were but fair.

Argus Range. After lunch we managed to get 2.40 P.M. a man to take us in his

trk. 16-22. Chevrolet up as far in the Indian Joe's garden Canyon

1/25

6

Looking down ditto.

3.00 P.M.

same other data.

of the Argus Range as a car could go. From this point we worked up to the garden at about six hundred feet above where we had left the car. The Argus Range is extremely rough and the canyon was none too smooth, while the heat was intense. Indian Joe's garden has apples, apricots, figs and an enormous grape vine, which latter seems to be dying from lack of water. The water has been piped out for the Broadway plant. Going up the canyon we caught almost nothing, but coming down we had fair luck. We were back at 4.15 P.M. and material & bags were packed, clothes changed and dinner absorbed in time to be on the train when she left at

6.30 P.M. The ride around the side of the lake, just as darkness fell, was beautiful in the extreme. We reached Seaside about 8.00 P.M., and at 9.41 we were in the Los Angeles sleeper and soon were asleep.

^{valley} ~~front of~~ Inuit. One flock of nearly a hundred flushed in Agua Range. Raven (the large fr. wh.-n.) found about edge of lake flat.

Rock Wren. One in Agua Range canyon.

Turkey Vulture. A number soaring over Trona in U.M.

Sept. 10, Los Angeles to San Diego, Cal.

1922.

The morning running into Los Angeles was beautiful, cool and pleasant. We arrived at 7.40 A.M. and Dickinson, who came down from Trona Friday night, was at the station to meet us. He saw us at the Santa Fe Station and having a good breakfast. Our plans were soon made, and it was arranged that Dickinson was to accompany us as far as El Centro at an agreed rate.

After arranging to meet at about one
 o'clock we parted, Morgan and I
 to search for a ship in Chinatown
 open on Sunday. Los Angeles was
 very dirty and the Mexican
 quidaster, through which we had
 to pass, looked particularly
 disreputable. Having located
 a ship and purchased several
 kimonoos and other things, we
 went back to the Hayward Hotel,
 wrote letters, had lunch and
 at 12.50 P.M. Dickinson met
 us and we started via machine
 for San Diego. Our route was
 via Whittier, Anaheim and
 Santa Ana, through endless
 orange & walnut groves, past
 old San Juan Capistrano and
 then along on near the
 ocean. It was a beautiful
 trip, and we reached the bluff
 at Torrey Pines just as the
 sun set in a blaze of orange,
 while it tinted the sky and sea
 pinkish and purple. We were
 unable to use the road through
 La Jolla, on account of repairs,
 so we had to use a back road
 down Rose Canyon. A Ford

brushed by us in a narrow part of the canyon, tried to edge by a truck in front of us and went down off the road, through a barbed wire fence, and down a steep slope, but none turned on and no one was injured. Not a mile below this we passed one, a heavy car, which had been northbound, which had gone off and turned on in its side, but injured no one. We reached San Diego at 7.05 P.M. and were soon most comfortable quartered, and later dined, at the U.S. Grant Hotel.

Terns. Several on lagoon near Hellman.

Brewer's Blackbird. Large flock over meadows betw. San Juan Capistrano and Encinitas. Large fowl with dark mantle-brown walking along beach just below San Juan Capistrano.

~~Just~~

Sept. 11, San Diego, Cal. to Tijuana, 1922. Baja California, Mexico & return.

Film 14

1

We left the hotel at 8 AM. with
Brachyus-Blavidsen and the car and headed
Sara habitat. Toward Dia Juana. In quite a
Dia Juana, few miles, through National
Cal. 2.00 City, etc. virtually everything
PM. is cultivated, the trees china berry

11 stop (munt)

1/25

and eucalyptus, as well as the
Aracacaya ?  At Chiquilo-
Cider of Retalho

2

vieta we found a piece of nearly
looking on virgin land in which in working
Dia Juana for some time, to my good
Rim Wash advantage, as I took Encoptophorus
from hills robustus. M. caught a splendid

to N.E.

Mexico

acc. rim.

2.00 PM.

11 stop (munt)

1/25

formed road here, which I will
endeavor to take home alive to
Buster. From Chaulovista we
ran on until we reached the
wash of the Dia Juana River,
near the little settlement
of San Ysidro, which is virtually
a part of the small American
village of Dia Juana. We worked
in the dry wash and the sandy
waste land there, then ran
on a very short distance and
examined a promising hill
slope, largely covered with
a chamise like bush, a species
of Rhus and ^{scattered} cholla, nopal
and yucca. Here we spent two

hours working and secured a
 new Truxaldif, probably a new
 gunn allied to it residents.
 There being no place on the Ameri-
 can side where we could get a
 decent lunch, we registered our
 engine number with the American
 customs, quickly passed the
 Mexican authorities after only
 a few words of explanation and
 then crossed the bridge to the
 Mexican town of Tijuana. I
 say "Mexican" with reservations,
 as it is mainly a set of dance
 halls, cantinas and dens managed
 by Americans, Mexicans and
 Chinese. We had dinner at a
 restaurant, a "Mex-Chinese affair,
 with beer and "topo chico", while
 a resplendent Mexican officer, with
 saber and a polished brass gorget
 about six inches long had a
 convivial glass with some friends
 at a bar in back of us. A flat-
 faced Reggie with a conspicuous
 "first national" in her chiffon
 rolled nose tried to drum up
 business, but most of her
 class had gone to San Diego to
 see the circus, which was in

from for the day. Eating done,
 and Hickey & M. beating a quarter
 machine out of \$2.50, we went
 back to the American side and
 worked the hills just north
 of the line and east of the road.
 Two hours were spent there,
 intensively examining and
~~beating~~ beating, the results of
 which were of great value,
 chiefly through secured a male
 (M. W.) and a female (J. R.) of a
Brachyinsara or an insara, in
 any case new to the U. S. and
 probably to science. From Dia
 Juan we ran north, varied with
 a bad fire blow-out, to the
 south end of the Coronado Beach
 spit, working two places, getting
 a good series of a desirable Trimeris
tropis and a large one of the
 very poorly represented Coro-
cephalus spinosus, for which this
 is the type locality. Leaving up
 through the Tent City, we passed
 through wonderfully beautiful
 Coronado Beach and its
 garden and then on the ferry.
 The bay was beautiful as it
 was just about sunset. Hester
 of a number of at least fifty were

grouped about the bay, one of the
old cruisers of the "Colorado"
class, a transport and supply
ship, as well as a number of
auxiliary ones also in harbor.
We put up material in the
evening for nearly three hours.

Millet. A number in beach on
Colorado Beach.

Cal. Brown Pelican. Several
in harbor - close view.

full, like large herring, with
dark mantle and large black
spot at angle of lower mandible.
Numerous over bay - several
flew close by.

Commander sp? One flying close to
ferry in San Diego Bay.

Sept. 12. San Diego to Campo, San Diego Co.,
1922. California.

We left San Diego at 8.45 AM,
with all of our belongings and
proceeded by way of East San
Diego, El Cajon, Jamul, Dulzura,
Potrero and Campo. At Jamul
very good sized mountains begin
looming N. to be in evidence all around me,
but on account of a high fog
we could not see them as satis-
facturily as we could have

Film 13
3

General
conditions
at Potrero,
Cal.

Looking N.
2.45 P.M.

11 stop. (cloudy)

1/25

worked. We worked at Jannet in
 several environments. Then moved
 along to Hutzura, which is at
 about a thousand feet elevation. Here
 oaks begin to be more in evidence,
 and we worked in this environment
 for some time. Leaving Hutzura
 we climbed for a very considerable
 distance out of the valley of Hutzura
 Creek and then dropped down
 into another valley, then again
 up a far longer grade to Potrero,
 which is at about 2500 feet. At
 Potrero we lunched and also
 worked. Here the chamise (Adenostoma
fasciculatum) puts in its appearance
 and we spent quite a little time
 in it, with 2 Morseas as return.
 From Potrero it is eight miles to
 Campo and we worked along this
 section at several points, reaching
 Campo about 4.30 P.M. We were
 soon installed at the little hotel
 and had a filling supper. Campo
 is just a few houses and a store
 but it is on the r.r. (S. D. & A.) and
 is also $1\frac{1}{4}$ miles from the Mexican
 line.

Brewer's Blackbird Enormous flock
 near San Diego.

San Diego.

Red-winged Blackb. Sev. near
Hulburt.

Cal.

Black Thrasher. Sev. toward morning
at Campo Creek at Campo.
Turkey Buzzard. Several on
route.

Ferry. Rough leg. One, in immature
plumage, flew just in front
of the machine near Campo.
Feathering well seen.

Sept. 13, 1922. Campo to Hulburt from, Hescence
San Diego Co., Cal.

We were up about 6.45 after a
splendid night's sleep and
shortly after breakfast we started
north, bound for the vicinity
of Hescence. In first, however,
stopped near Campo for nearly
two hours, in chance, rabbit
weed, under oaks, sandy wash &
gravelly (granite fragments) slopes.
Running northward we gradually
climbed a long grade and then
dropped down into another valley,
one of the tributaries of Cottonwood
Creek, up this to Buckman's
Springs, where we struck the
main San Diego-Imperial Valley
road. Then we climbed up to

over four thousand feet elevation, at the junction of the road going east into the Laguna Mts, then down again in a succession of blind curves, but fortunately with a very good road. At Guatay, at the east foot of Guatay Mts. we worked for a good part of an hour, getting some interesting material, then ran on and down to Plescauco (3500 feet). At the little store there they directed us a mile to the Hurlbird Grove camp, where we secured excellent accommodations, a cottage cabin with two bed rooms, one with an extra cot, and a satisfactory bathroom and toilet. We had a very good lunch and then spent several hours working in the neighborhood, woods slopes, valley bottoms and stream meadows. Morgan had secured a gasoline pressure lamp at Campo and he tried it out in the evening.

California Jay, A number about
Plescauco.
Blackbird, ditto - drinking
in creek.

California Woodpecker. Several at
Hescance - hanging
like a flycatcher.

Raven. One out in Cottonwood
Creek.

Brewer's Blackbird. great flock
along Cottonwood Cr.

1 Kildeer. See. along Creek at
Hescance.

Goldfinch sp? A number at
Hescance.

Sept. 14, 1922. Hurlbird from Hescance to
Laguna, Laguna Mts, San Diego, Cal.
A.C. no. 62. Woke up at 6.30 AM and had
an early breakfast. Going toward
Cuyamaca Peak our course was
Laguna, back to the Julian road at Hescance, then due north past
Laguna Mts., then due north past
S. W. Co., Chazyanita Lodge, another summer
camp, down into the valley of
Hescance Creek, then up a long
grade, until in one relatively
close to Cuyamaca Peak. Then
the machine in truck off along
an old road, first through large
oaks, such as we had been passing
all morning before, then into
pine, with much cedar and
finally some fir (Abies). The

Filed 13
#4
Looking N.
toward
San Jacinto
Peak from
top of
Cuyamaca
Peak.
11.15 AM.
16 stops.
1/25

#5
Looking
toward
Cuyamaca
Peak
from same
pt. as #4
same date

#6
Looking S.W.
over Mesquite
Valley from
camp, as
#4
same date

Feb 14
#1
Looking
to Cuyamaca
Peak from
same point
as #1
Cuyamaca
Peak at
6200 ft.
1600 ft.
11400 ft.

#2
Looking from
east side of
Cuyamaca
Peak
toward
Salton River
3.45 PM
22 Sept. 14

#3
Looking along
top of
Cuyamaca
Mts.
same date

first portion of the climb was
easy, but we left the road and
Cuyamaca struck more directly for the peak,
then the going on 45 or more degree
slopes was very hard. Finally we
reached the summit (6511 feet)
with its forest fire watch station,
and the views from the summit well
repaid us for the climb. To the
north San Jacinto and San
Geronimo Peaks were plainly
evident and to the northwest
we could see Santiago Peak in the
Santa Anas. To the northeast
was Cuyamaca Reservoir, to the
S.W. was the valley at Hesperia
we had left earlier in the morning.
The ridge of the Laguna Mts. led
the Salton Sea and the Imperial
Valley from us. Pushing down
again, working at favorable
spots in the way, we reached
the machine shortly after twelve
o'clock, and started back to
Bakersville, where we had a
very satisfactory lunch. Getting
off the horse again, headed
south we were down on roads we
had covered yesterday,
through Pine Valley and up

to Laguna Junction, where we turned
 off to the east on the narrow mountain
 grade which is the sole way for
 reaching the Laguna Mts. The
 road is dangerously narrow, with
 long slopes beneath and many
 sharp, blind curves. To make it
 worse ~~the~~ the road soon became
 very rough and stony and it
 was a relief to reach section
 where a sudden meeting did not
 imply on the edge for one of the
 cars. It was 11 1/2 miles largely
 up hill from the junction to
 Laguna Post Office and camp,
 at an elevation of 6000 feet. We were
 assigned to a tent here, then
 walked off for a half mile or so
 to a point where we could see off
 on the Salton Sea and a portion
 of the Imperial Valley. The east
 side of the Lagunas, which are
 really a plateau culmination
 of the San Jacinto Coast Range,
 is quite sheer for some little
 elevation, and suggests on a
 smaller scale the drop from
 the Panamint into Death Valley.
 Just a short distance on the
 edge we could see pinyon, a

tree in human on the San Diego
side of the Coast Mts. In low thickets
of chin-oak, some chamise and
manzanita, at the summit of the
ridge, we had some interesting
collecting until nearly evening.
We had an excellent dinner and
then packed material until after
nine o'clock.

Aphelocoma sp. Numbers at Descanso.
Long-crested Wren. Great numbers at
Laguna Verde in Arroyos de San Juan,
in pine & fir.

Bluebirds. Many at Laguna.

cal.

Grackles. One in brush at
about 4000 feet en route.

California Woodpecker. Seen all
day in scrub - very common
at Laguna.

Northatch. (with mahogany on
sides of neck & gray back) In
trees at Laguna, & flying down
in road to search for things.

Chickadee (app. like bl. capped)
Several at Laguna.

White-throated Swifts. Along edge
ridge of Laguna Mts.

Sparrow Hawk. One near Descanso.

Sept. 15, Laguna Beach, Laguna Mts. to
1922. Jacumba Hot Springs, San
Diego Co., Cal.

Film 14. Woke up about 6.30 AM and
#4 had breakfast about 6.45 AM. The
morning night was by no means as cold
with the sun as we had imagined it would
be, so we were agreeably disappointed.
Breakfast was as good as
Laguna last night's dinner, which we felt was
due to a Southern lady of color who
seemed to have much to do with
the kitchen. We were off about
8.45 AM. took an hour to get
down the very ticklish Laguna
road, cleared and a half mile
to the main road. Then we
retraced our way to Camp,
to return a gasoline pressure
lamp we had borrowed and
to lay in some gas. There we
discovered that Dickinson had
failed to replace the gas tank
cap when he had filled
his gas some miles back. After
considerable search and further
effort we found a tin can which
completely closed the opening.
It was now quite warm and we
were headed eastward toward

Jacumba Hot Springs it steadily
 increased. The country rolled
 higher and higher, broken hills,
 some covered with balanced
 stones on top of them and some
 of the valleys between on part
 cultivated. We reached Jacumba
 about 12.30, after making a
 mile or so west of the source.
 It is "a regular town" as one of its
 signs said, with several hotels,
 several eating places, hot springs,
 swimming pool and casinos.
 We got 3 rooms at one of the hotels,
 some lunch and rested until
 about two, then off to the east
 for the afternoon. We worked ~~to~~
 first about a mile and a half
 away, in what seems to be a
 tributary valley of Carrizo Creek,
 then about five miles away on a
 ridge, from which one has a
 fine view of the Salton Sea and
 portion of the Imperial Valley. The
 first locality had more Covillea
 than the second, but the latter
 had more yucca, cactus and
Ephedra. Material was scarce
 but interesting, and we put
 about three hours work in at

the two localities. Several Horns
being around us, a large one
just on the Mexican line about
a mile south of Jacumba. In
the evening Wilson ran out some
miles on the machine to see
the flash lamp.

Cyanocitta stelleri, Numerous
along Laguna Road,
California Hot Springs. Common
about Laguna - Camps.
Bluebirds! Numerous about
Camps at Laguna.
Red-shafted Flicker. Common
Camps.
Crows, Near Buchanan's
Springs - flock.

Sept. 16, Jacumba Hot Springs to Calif
1922 Centro, Imperial Valley, Cal.
The road was a most delightful
63 right to sleep, a blanket feeling.
Hippo - very comfortable. We were up at
saw 6:30 and after breakfast started
Coyote off to the East. There was but a
Mills, portion of the road which was
Imperial really pleasant riding, for
Cal. we had travelled only a few

Feb 14

5 miles when the sun began to get
 across in his work. The drop ^{of} down the
 Imperial Valley grade starts about six miles
 - ^{from} east of Jacumba Hot Springs
^{from} grade and then through Mountain Spring
 at 20 ft it is steadily down hill, winding
 8.15 AM in and out along a very rugged
 22 1/2 mi canyon, at times almost a
 gorge. The road has many blind
 corners on it and is of poorer
 construction on the more danger-
 ous section. By the time we
 reached Coyote Wells the heat
 was intense, and as we had
 worked for about two hours in
 the sun at these places we ran
 along through the scorching
 breath of midday, past Seely
 into El Centro. We stopped at
 the Barbara Worth Hotel, a
 splendidly constructed building,
 but absolutely unsuited for the
 region, as it lacks verandas
 and has low ceilings. El Centro
 was cooking in a temperature
 of 114° in the shade and we
 kept indoors until about 3
 PM: when we started out to
 find some untouched valley
 floors. This was easier said

than done, and we drove east to Holtville and several miles beyond that from where we gave up tracks. It was nearly six when we got back and while getting dinner we figured out our plans for the morning, largely based on our experience of the afternoon. The evening was outrageously hot and the hotel rooms take most of the evening.

Roadrunner. Seen above
El Centro, Holtville and
Coyote Hills.

Burrowing Owl. Saw one at
Coyote Hills and a number
btw. El Centro & Holtville
one group of three about an
irrigation gate.

Dove. Numerous about El
Centro & Holtville.

Sept. 17, 1922. El Centro, Imperial Valley, to
Indio, California.

We are up at 4.45 AM. planning
to make an early start for
Indio. After a bit of break-
fast we are off at 5.50

Feb 14 AM. The night had been infernal,
 # 6 absolutely no breeze, in a hotel
 Feb 15 completely and entirely unfitted
 # 1-6 for such a region, and the heat
 P.M. was terrific. When we started
 11 1/2 there was a little coolness in
 middle of the air, which lasted until
 1 1/2 after noon, then the regular
 warming up began. We traveled
 through Imperial, Brawley and
 Maricopa, all promising
 4 30-5 45 centers of agricultural region
 but apparently planned on a
 (P.M.) more lavish and cosmopolitan
 (last time) scale than the facts warranted.
 9 30-10 45 The road was very question-
 able through these communities
 good roads through the former
 and meandering dirt roads
 by sections & squares between.
 Some miles beyond Maricopa
 land we struck the cement
 road, which continued ~~nearly~~
 sixty miles into Indio. It
 led around the Salton Sea
 through a region which for
 nearly forty miles has no
 habitation and almost no
 water. At Cane Spring there
 is a small water hole, of very

unexpressing water and
 some tules. We worked there
 and six miles n.w. of the same
 we tried working in some silt
 and sand flats, with a grass
 coming, alongside of two large
 yellow sandhills, the only ones
 on the route. We were
 surprised to find *Ranunculus*
cold, running fern (H & R 1).
 At Casio, which is a little
 settlement near the N.E. end
 of the Salton Sea, with date
 palms, etc. we halted and worked
 for a while, also absorbed two
 splendid lemmings for which
 they are famous. While running
 along the west side of Salton
 Sea we had a splendid breeze
 for the lake, which was very
 pleasing. As soon as we
 got beyond the lake the heat
 was very great, and though
 Eschella and at Indio it was
 roasting. At three in the after-
 noon we went out in a machine
 to the canyon N.W. of the town,
 in the San Bernardino Mts.,
 which has a number of palms
 in it. We had to make the east

mile in foot as the road was too sandy, and our flier stuck as it was. We boarded the 9.32 A.M. train and had a hot session in upper bathos bound toward Gila.

Large black hawk with distinct white band on upper surface of tail at base. One at Indio.

Wren. Numerous in Imperial Valley, at Oasi & Indio. Gambel's Quail. Sev. coveys en route.

Mallard (? ♀) One flying up from irrigation reservoir at Indio. Shrike. Number en route.

Road-runner. Sev. at Indio & num. other El Centro & Brawley.

Sept. 18,
1922

Gila to Ajo, Pima Co., Arizona. We came off at 5.40 A.M. at Ajo, after a short, restless sleep, all the hunter because we turned our watches ahead one hour ~~out~~ to take Mountain Time. The sun came up in a pink glory just as we had started during some breakfast at the little railroad eating place at Gila, made of an old

railroad car. The mountains
 went from pink to purplish, then
 gradually into their day colors.
 The Arizona desert had asserted
 again its irresistible appeal
 which no other can equal. We
 checked our camp kit through
 to Phila. & got that off our
 mind, then climbing aboard
 the motor train, a white bus
 running on railroad track
 which was to take us to
 Ajo. The trip was most interesting.
 Forty-four miles of the
 creosote desert, with palo
 verde, palo fierro, cat-claw,
 mesquite, Sahuaro-cholla, which
 we know so well. We could see
 Crater Mts. to the west and
 Gunsight Mts. to the south. Ajo
 is a modern mine town
 with surprising accommodations
 and facilities. Its railroad
 station, school, stores, etc. would
 do credit to a place as large
 as Tucson. We were com-
 fortably installed and then
 arranged for a machine to
 carry out our plans for the
 next two days. We were in

out and went on in a nearby
canyon of the Little Ajo Mts.,
where we had the high desert
canyon vegetation of Papago land.
We had splendid luck, as the
notes can testify. After lunch
and session putting up materi-
al we went out again, this
time about six miles out to a
region of more grass, with
broad, gravelly washes. Here
we had even better luck, secured
the first adult *Calamagris*
we taken with exact data in
the U.S., also many other things.
We were back shortly after five
and put up stuff, then to bed
early on account of a hard
day on the morrow.

Insular Hawk. One in canyon
at Ajo.

Turkey Buzzard. Numerous
about Ajo.

Jaeger's Hawk. One at Ajo.
Jila - Ajo.

Sept. 19,
1924. Ajo to Quitovaquito, and return to
Ajo, no 64. Jila, Arizona
Insular Hawk.
M.H.

- Film 16
#1
General view
of
Quilobaguito
#2
In front of
Range
#3
Frontier Pass
#4
Saluaro
Frontier Pass
#5
Ajo Range
Frontier Pass
(east side)
- We came up about 4.30 AM. and we
left in machine for Quilobaguito
at 5.20, long before daybreak. We
ran by using our lights out through
the little Ajo Mts. back of Ajo.
day not just breaking as we got
out in the arm of the Ajo valley
which lies between the little Ajo
& frontier Mts. We had breakfast,
hot coffee from a thermos can and
sandwiches, first before reaching
frontier Pass. The road is fair up to
near the frontier Pass, but from there
on it is very poor. Through frontier
Pass it is very stony and from that
point it follows down a long canyon
crossing innumerable washes, none
very large, but all had run the
night before and the whole country
had been well drenched. The
paloverdes and palo fierros were
very large and luxuriant, as
well of the many branched cereus of
the candelabra type also evident.
In some of the washes were areas
of a high, vividly green grass known
as "ginecca" grass, which, however,
did not prove particularly good
collecting except for *Paropoma*.
Near Quilobaguito we ran through

galleta
galleta

a group of low hills known as the
 Quitovaquito Hills, around one which
 bears a boundary monument, the
 road circling into Sonora for a few
 hundred yards, then turning
 back into Arizona to the springs and
 tanks of Quitovaquito. The springs
 are very good, coming out of solid
 rock and the tank was then filled
 to overflowing. Quitovaquito did
 not prove to be as rich a locality as
 Ajo, but we got at least one species
 never before taken in the U. S.
 It was also intensely hot. We headed
 back about 10.00 AM. and worked
 in the Quitovaquito Hills, several
 localities along the west side of the
 Frontier Range and in Frontier
 Pass. After leaving Frontier Pass
 the view to the east across the
 Ajo Valley to the big Ajo range
 was magnificent, with White-
 morn's Head sticking up to the
 Sonoran viewpoint and the big Mts.
 We were back at Ajo at 3.15 PM.
 and then we raced to get as much
 done on our day's catch as possible
 before leaving at 5.45 PM. We managed
 to just get everything safe, and
 boarded the motor to run back

to Jila. A heavy storm had
 washed up over the country we had
 traversed earlier in the day, and
 before we reached Jila we had ~~in~~
 brushed into two rain squalls and
 went through a terrific wind
 storm, which tore loose our curtains
 on one side. Within a few hours
 of this time I had developed a
 splendid cold in my head,
 which may have been due to the
 dust bath. Arriving at Jila
 we rushed through a bite of
 dinner and boarded the
 Summit Limited at 8:11 P.M.
 getting into Tucson at 11:45.
 We were then installed in the
 Santa Rita and went to sleep.

Smith's Quail. About half a dozen
 coveys, those seen early in the
 morning very large and
 spread over a great extent of
 ground.

Hove. Numerous at Divisadero
 Rancho. (Small - prob. white-necked)
 2 flying over. Ago - Jila.

Sept. 20.
1922.

Came to Nogales, Arizona.
After a good breakfast at the hotel we attended to a number of little things, then boarded the 10.40 AM train for Nogales, where we arrived at 1 PM. The country between was about as I expected nearly to Calabasas, that is following along the relatively fertile and pretty thoroughly cultivated Santa Cruz valley. From Calabasas to Nogales, however, it is uphill work, a steady climb up a steep grade. Nogales is a much more up-to-date and interesting town than we had expected to find it. The two railroad stations are on opposite sides of the famous "International Street", but down the middle of this street runs a high woven wire fence and but two custom passages are open in Nogales. We were very safely installed at the "Hotel Bonmahon" in comfortable rooms, had arranged for our machine and gotten some lunch, we went out the "Patagonia Road", winding out over high grass hills into oaks in the depression, and then down along the beautiful

bottom land of the Santa Cruz River, with its splendid old cottonwoods. We worked both on the high ridges and along the river bottom, also in mesquite park country at the foot of the hills on the river side. It was extremely rich for us and we took back a very large haul, which kept us going until after eleven putting it up. I had a miserable cold and ~~was~~ rotten in digestion, so I was anything but comfortable although I plugged away until the job was done.

Aphelocoma Jay. In cottonwoods along Santa Cruz River near Nogales.

Sept. 21, 1922. Nogales to Cerro Blanco Mts -
Arizona.

Feb. 16 # 6
Journal
from to W.
in Cerro
Blanco Mts.
I was up thirty before seven.
I was feeling extremely weak,
because in addition to my
cold the stomach upset, which
had started in at Indio, had
caused me to eat relatively
little for some days. However, I
ventured a breakfast of some

Film 17

#1-3

Details on
Gro Blaine
Mt.

Scrambled eggs and coffee. We left the hotel in the machine about 8 A.M., and drove north on the Tucson road for some little distance then turned off to the west, running through country becoming more and more rugged, and higher, regularly covered with oak groves, and with many jagged peaks and pinnacles overhanging the surface below. The road is a forestry road, as a good part of our route is in the Coronado National Forest, and in some sections the blind curves are numerous & sharp. We worked at three points: The first at about $\frac{2}{3}$ of the distance Diamond and some thousand feet lower than, the second, which was the farthest point reached, about 2.5 miles from Nogales, and the third, about four miles east of the extreme point reached and higher. From the third locality Morgan climbed to peaks of the range a thousand or more feet above the road. The results were excellent, but particularly good at the third point, where we

took a series of a Perixerus, the first for the United States, a strikingly green & red species, while high up Morgan took the previously unknown adult of Proceronypha brown. I was feeling somewhat better but work was rather hard, and on our return to ~~Donora~~ ^{Nogales} I set to work to doctor in earnest. Late in the afternoon we shipped a box of specimens home, and with Smith our driver, we had dinner at "The Cafe" in Nogales, Sonora. I managed to hold down the best meal I have eaten for days. We worked until midnight putting up material.

Read reviews. Mt. on top of Red-throated Flicker. One along stream bed.

Rock Wren. Numerous in Cere Blanco Mts.

Myiarchus or yellow-bellied Tyrannus
A number on route.

Sept. 22, 1922. Nogales to Patagonia Mountains, Arizona and return.

Film 17
#4
Views in Patagonia Mts.

We left the hotel at 8 AM. and

File 17
5

From Patagonia Mts.
on Santa Cruz
Valley.
Nozales.

Traveled on the Patagonia Road as far as we went in the 20th, except that we did not turn off and run down in the river flat, but continued across the river, climbing the hills on the far side. From there on it was a regularly rising road to the foot of the Patagonia ~~Road~~ Mountains. The range is a beautiful one, with the north face slopes of the canyons solidly covered with oak, while the south facing slopes are more grassy, with scattered or no trees at all. We worked at about five stations, the upper one as high as the road went, and to get there the machine had to follow a real mountain grade for quite a distance. When we reached the top of one of the ridges for the point the machine stopped, but found virtually no change from the point on the road. We were back in Nozales shortly after three and had all of our material taken care of before getting dinner.

Turkey Buzzards. Numerous.
 Raven. One, seen about six
 m. from Nogales.
 Red-shafted Flicker. One near
 Santa Cruz River.
 Sparrow Hawk. Several

Sept. 23, 1922. Nogales to Tucson, Cochise Co.,
 Arizona.

Film 17
 # 6
 Hills at
 Ustom,
 Ariz. where bank before it had backed
 in.

We were up at 5:45 AM. Had
 breakfast and were ready to
 start on the motor for Fair-
 bank before it had backed
 into the station. The army
 dirigible C 2, which had arrived
 the afternoon before, on its flight
 from Langley Field to California,
 had just taken the air, and
 it made a circle down and
 over Nogales, Sonora, then came
 back and headed off toward
 Yuma, its next landing
 place. The motor left at 7.00
 and after leaving the Tucson
 line at Catalina our route
 followed up a beautiful table-
 land of the Santa Cruz, with
 fine large cottonwoods, rich
 grass and wild flowers,
 past Patagonia and Tucson.

It then emerged on high rolling grassy plains to the north of the Huachuclas, between these mountains and the Mustang Range. The drop on the east side was down the Batconari Creek, to the San Pedro at Fairbush. Very little work at

Fairbush demonstrated that it was not a locality worthy of extended time, so after lunch we boarded the "Californian" and ran on about forty miles to Naco. Naco is a rather pitiful American town, pretty well eclipsed by the sufficiently well-known Mexican Naco immediately over the wire-fence. We soon secured a machine and were installed in a hotel, built partly of adobe. We worked first about a mile out of town in a fine piece of irrigated land within a few yards of the Mexican line, which there is without a fence, but with a road on each side. Most of our work was done from miles to the East, on and about some hills just south of the R.R. junction of Colima.

These limestone hills run south
on the line, but the northern
section is the highest part.
An area of black brush on the
south slope interested my
much, also some greenwood
which was quite foreign to
the other features of the veget-
ation. We put up material
until after ten o'clock and
then turned in.

Sparrow Hawk. One like Calabasas
Solidly black birds with no bare
heads (Mex. H. hawk?). Several
near Nogales along rails.

Dusky Vulture. Numerous between
Nogales & Fairbank.

Roadrunner. One ditto.

Myiarchus. Numerous like ditto.

Meadow Lark. One near Calabasas.

Ariz. Woodp. One near Patagonia.

Calamospiza. Several large
flocks about Naco.

Sept. 24, 1922. Naco to Mule Pass, return
to Naco & then to Douglas,
Arizona.

File 18 #1 I had a splendid sleep, but
Morgan had a terrible expe-
rience with mosquitos. After
Looking down
Doubtless
Canyon, from
Summit of Mule
Pass, Mule Mts.

a plain but wholesome breakfast
 we left in the machine at 8 AM.
 headed for the Mule Mts and
 the country above Bisbee. We
 stopped first at Hlowhies, at
 the foot of the mountains and
 worked profitably for some time
 on the hill slopes. Morgan got a
 bad crack with scotello here,
 which nearly paralyzed his
 right hand. Going up hill we
 passed through Bisbee, which
 is a most attractive sort of
 mining town, we climbed by
 the Indian road to Mule Pass,
 at 6000 feet. Here we left the
 machine for several hours,
 Morgan going up a 1200 foot
 peak to the south, while I
 worked up to the north to
 a flat called "Juniper Flat",
 at 7250 feet. The view from
 Juniper Flat was quite
 extensive to the north and
 east. After eating lunch
 at the car, we returned
 through Bisbee to Hlowhies,
 where we worked again for
 a while. Running back to
 Naco we picked up a piece

of Tamias on the edge of
 town and then ran out a
 short distance to the first
 locality visited by us yester-
 day, to get an addition to our
 series of Trimerotropis melan-
optera, which we did. Back
 at the hotel at 2.45 we packed
 & prepared material until
 time to go to the train. We
 left Naco at 5.50 and were in
 Douglas about seven. After
 getting comfortably settled
 at the "Gadsden", we secured
 a good lunch, finished our
 material & went to bed.

Aphelocornis Jay. with approx-
 blue in ♂, gray in ♀. Few
 seen on top of Mule Mts at
 7200 feet. M.H.
Lark Bunting. Several flocks
 near Naco.
Band-tailed Pigeon. Flock
 of 10 on way up - 6 on way
 down high peak of Mule Mts.
 M.H. 7000 feet.
Raven. One Mts. Naco &
 Don Luis.

Sept 25, Douglas to San Bernardino
Ranch, Arizona, and return.

We left the hotel at 8.00 AM.
with a driver and machine,
headed due east for San
Bernardino Ranch. To the east
of Douglas we passed the large
Army camp established here some
years ago, and at which a
considerable detachment of
cavalry is still stationed. Then
the road led on a draw in the
relatively low Perilla Mts, which
here separate the Sulphur Springs
Valley, in which lies Douglas,
from the San Bernardino Valley,
which latter is separated by low
hills from the San Simon Valley
to the north. The San Bernardino
Valley drains southward into
the Yucua Basin of Mexico. From
the Perillas, where we spent the
latter part of a profitable hour,
we dropped down into San Ber-
nardino Valley and after some
miles reached the ranch. Here
are many fine cottonwoods,
good springs, great quantities of
sacaton grass and also of
cactus wood. We worked through

some time, chiefly after Melanoplus thomasi, which we soon located and secured in numbers. From this point we moved to the nearby bunch, with a covering of lawn fragments and very rough surface. Here black brush and creosote bush were associated, but no Leucostictus, Goniadon or Bortellus were found. We were back in Douglas at 3.30 and worked until 11 P.M. putting up a large haul.

Turkey Buzzard. Several.
 Quail 1 sp. One corner flushed
 by G.C. in Perilla Mts.
 Brewer's Blackbird. One large
 flock at San Bernardino Ranch.

Sept. 26, ^{Ariz.} Douglas, to Hachita, New Mexico.
 1922. We left the hotel at 8 A.M.,
 in the same machine we used
 yesterday. We left off to the north
 of Douglas in the Sulphur Spring
 Valley, collecting in two con-
 ditions, one an open valley flat,
 the other about a deep wash which

is the valley drainage channel.
 Results were but fair, although
 we secured the first Arizona
 record of Tropidolophus. We
 were back at the hotel before
 eleven, put up the day's catch,
 had lunch and boarded the
 2.25 P.M. train for Hatchita,
 New Mexico. The track climbs
 through a low pass in the Perilla
 Mts., then down into the San
 Simon Valley, following this diagon-
 ally N.E. through a group of
 hills at the north end of the
 Guadalupe range and then
 across the Valle de las Playas,
 then up through more hills, which
 are probably the southern Pelonaes,
 then down into the valley in which
 the town of Hatchita is situated.
 Arrangements were soon made
 for rooms and a machine to
 drive us back up to the Hatchita
 Grande in the morning. After
 a substantial dinner we
 chatted for some time with a
 Biological Survey wolf man
 named Anderson, a most
 interesting fellow, apparently
 a man of a naturalist bent.

Golden Eagle. One or fewer
 just between Pecos and
 Hachita.

Swainson's Hawk. One flying
 same points.

Sharp sp? Flatfay above
 with faint yellowish or white
 below. Sev. flying, between
 same points.

Rock Bunting. Several
 flocks at Hmonglas.
 Dove. Sev. batches between
 Hmonglas - Hachita.

Sept. 27, Hachita to Hachita grande
 1922. Mts., New Mexico and return.
 Film 18 and into El Paso, Texas.

2-6. We were up at 5:30, had break-
 fast a few minutes after
 Hachita six and were off before seven
 grande Mts. for the Hachita grande Mts.
 We ran due south down the Hachita
 valley for nearly twenty miles,
 then climbed a draw between
 the little Hachita and the
 Hachita grande, then south
 on Pecos Valley to a ranch
 at the base of a large west
 facing canyon. About ten
 miles south of Hachita we

Arim shot a coyote with his .30-40,
 making a fine long ~~shot~~ shot,
 and getting him through the shoulder.
 From the ranch in the Playas
 valley we climbed a good part of
 a thousand feet, up a road
 made up of nothing but sharp,
 loose stones in many places,
 to a point in the canyon at
 about 5500 feet elevation. From
 here Morgan struck for higher
 lands, while I worked the
 canyon and surrounding hill
 slopes. Our center was at the
 lower edge of the juniper and
 piñon belt, which became very
 solid on the slopes under the
 nearly vertical walls of Hachita
 Grande Peak, which has a
 cliff face of about 1800 feet.
 At 1.30 we started back, collecting
 at the canyon mouth, then
 straight to Hachita. We packed
 and at 7.50, on an early late
 we pulled out for El Paso
 and arrived at 10.00 P.M.
 Installed at the Paso del Norte
 we prepared material until
 1.45 AM.

Golden Eagle. Sev. about
 peaks. Mts. 8500 feet.
 Jay (Pine) large flock at
 about 7200 feet on peak (Mts)
 Hawk Breeding. Numerous
 Horn Numerous.

Sept 28. Left El Paso at 3.05 P.M.
 1922. small horse car in "Golden
 State Limited."

Sept 30. Reached Chicago at
 1922. 9.35 A.M. Left at 12.40
 P.M. in "Broadway Limited."

Oct. 1. Reached North Phila.
 1922. at 8.20 A.M.

Copies given to Dorothy.

Rose + Stone.

Mail (dates are of mailing in Philadelphia and vicinity).

Until Aug. 9 - Evanston, Nevada.

Aug. 10 - 13 - Wells, Nevada.

" 14 - 24 - Bakersfield, Cal.

" 25 - Sept 8 - San Diego, Cal.

Sept. 9 - 16th - El Centro, Cal.

" 17 - 22 - El Paso, Texas.

Emergency addresses (Telegraph)

August 16th - Cheyenne, Wyoming.

" 17th - 8th - Laramie, "

" 9th - Medicine Bow, "

" 10 - 11 - Rock Springs, "

" 12 - Green River, "

" 13 - 14 - Evanston, "

" 15 - Ogden, Utah

" 16 - 17 - Wells, Nevada.

" 18 - Reno, Nevada

" 19 - 20 - Alturas, Cal.

" 21 - 22 - Lakeville, Oregon.

" 23 - Wendel, Cal.

" 24 to 26th - Westwood, Cal.

" 27 - ^{Aug. 31} Sept 1 - Coalinga, Cal.

Sept 1 - 4 - Bakersfield, Cal.

Sept 5 - 9 (as possibly 11) - Searles, Cal.

Sept 10 (as possibly 12) - 13 - San Diego, Cal.

Sept. 14 - 15 - Campo, Cal.

Sept. 16 - 17 - Jacumba, Cal.

Sept. 18 - 22 - El Centro, Cal.

Sept. 23 - 24 - Gila, Arizona.

Sept. 25 - Osborn, Arizona.

Sept 26 - 27 - Columbus, N. M.

Sept. 28 (at most) El Paso, Texas.

Address for telegraph to "Leading Hotel."

Rounds of drafts

\$10

A 1,872,784

A 1,872,785

A 1,872,786

A 1,872,787

\$20

B 1,806,167 cashed Phila VIII. 4. 1922

B 1,806,168

B 1,806,169

B 1,806,180

B 1,806,181

B 1,806,182

B 1,806,183

B 1,806,184

\$30

C 771,691

C 771,692

C 771,693

C 771,694

C 771,695

C 771,696

C 771,697

C 771,700 cashed Laramie, Wyo. VIII. 8. 1922.

Coll. 739

Rehn, J. A. Co. Field Journals

1922

List of photographs taken during expedition
found between pages 52 and 53 of
Volume # 11.

A. Telescope Peak in Panamint looking E.
from floor of Panamint Valley, showing
mouth of Wild Rose Canyon. ~~more~~ 2000 feet.

B Wild Rose Canyon at 3000 feet. Below Wild
Rose Spring.

C Up Wild Rose Canyon from spring (Wild Rose
Spring 3600 feet).

D. Down canyon from same point.

E. Down Wild Rose Canyon from 5500 feet, looking
due W. Sierras in distance.

F. Kilns at 6500 feet Wild Rose Canyon.

G. Down Wild Rose Canyon from Kilns.

676½

